

Remarks

The above Amendments and these Remarks are in reply to the Office Action mailed October 25, 2004.

The Examiner is thanked for the performance of a thorough search.

Claims 1 - 23 were pending in the Application prior to the outstanding Office Action. The Office Action rejects claims 1 – 23. This Response amends claims 1, 7 – 8 to strike the word “adapted” and amends claims 15 and 17 to recite explicitly that which was previously implicit. No new matter is added. Accordingly, claims 1 - 23 are in condition for allowance. Reconsideration of the rejections is respectfully requested.

Rejections under 35 U.S.C. § 112

In items 4 - 5 on page 3, the Office Action rejected claims 1, 7 - 8 under 35 U.S.C. § 112, second paragraph, “as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.” Specifically, the Office Action points to the use of the word “adapted.” Applicants respectfully assert that amendments to these claims as indicated above to eliminate the word “adapted” render the Office Action’s Rejections moot.

Rejection under 35 U.S.C. § 103(a) over EIA in view of Nakaie

On pages 4 – 6, the Office Action rejected claims 1 - 5, 7 - 23 as unpatentable over the Electronic Industries Association (EIA) JESD22-C101 Test Method (1995) [Applicant provided reference], in view of Nakaie et al. (U.S. Patent 5,740,007 (1998)). Applicants respectfully traverse.

Even if it were even possible to combine EIA JESD22-C101, which applies test charge to a field-charging electrode beneath a device under test (Figure 1), with Nakaie, which tests a device directly using a probe (Figs. 1 - 2), neither EIA JESD22-C101 nor Nakaie, alone or in any combination, teaches, suggests or otherwise renders obvious the embodiment recited by claim 1

at least for failing to teach or suggest the claimed charge capacitor. In fact, Nakaie even teaches away by instead teaching the use of enclosing a mercury switch inside a conductor in order to reduce inductance. (col.1, lines 61 – 65; Figs. 1 - 5). Further, were it attempted to use Nakaie in the manner argued by the Office Action, i.e., in conjunction with a charge plate upon which the device rests (Specification, Fig. 3), doing so would render Nakaie inoperable or change its principle of operation (see MPEP § 2143.01) since Nakaie's approach REQUIRES a cylindrical conductor and mercury switch to apply a charge to the lead of a device under test (Nakaie, Figs. 1 – 3).

Even if, arguendo, the Office Action's argument that the quoted language from Nakaie, "when $R < 2 \cdot \sqrt{L/C}$ in a series circuit having a resistor R, capacitor C and inductance L, the discharge current attenuates at a rate of . . ." (col.1, lines 38 - 40) suggests capacitance were even correct, this language instead describes symptoms of a problem occurring as a result of the properties of Nakaie's lead wire and mercury switch, not a charge capacitor:

Recently, a mercury lead switch is provided in the discharging circuit to prevent the generation of electric arc or other unwanted phenomena, as shown in FIG. 1. When the mercury lead switch is provided between the grounding conductor and the terminal of the IC that are connected by lead wires, the floating inductance in the discharging circuit becomes very large. (col. 1, lines 20 - 25)

Nakaie continues with the passage quoted by the Office Action, then describes the problem arising from the large inductance:

This means that attenuation takes place rapidly, which in turn means that rapid discharge of electricity does not occur, when inductance L is large. With the mercury lead switch connected to the grounding conductor and the terminal of the IC by simply using lead wires, in addition, it is difficult to obtain a discharge

having a waveform conforming to the requirement specified for the CDM simulator. (col. 1, lines 20 - 25)

Nakaie opts for a cylindrical conductor approach (which teaches away entirely from the claimed embodiments) to overcome the large inductance:

[T]he improvement according to this invention is that the mercury lead switch is contained in a cylindrical conductor, the end of the mercury lead switch opposite to the end thereof connected to the terminal of the IC is connected to the cylindrical conductor, and the end of the cylindrical conductor close to the terminal of the IC is connected to the grounding conductor, as shown in FIG. 2. (col. 1, lines 61 - 65)

Thus, the strongest conclusion that the Office Action could draw from the quoted language (and indeed all of Nakaie) is that properties of Nakaie's cylindrical conductor overcome the inductive properties of Nakaie's mercury switch and could aid in tailoring the form of an input signal.

None of this, however, has anything to do with the claimed charge capacitor or storing a charge on said charge capacitor. Nakaie's mercury switch, switches an input signal, which fails to teach, suggest or otherwise render obvious the claimed charge capacitor recited by claim 1.

Accordingly, the asserted combination of EIA JESD22-C101 and Nakaie, even if it were even possible, fails to teach, suggest or otherwise render obvious the embodiment recited by claim 1 as well, teaches away, and would be rendered inoperable or unsatisfactory for its intended purpose or changed as to its principle of operation if it were attempted to be used in the manner asserted by the Office Action.

Rejection under 35 U.S.C. § 103(a) over EIA in view of Nakaie further i.v.o Gieser

On pages 6 – 12, claims 6, 8 - 23 are rejected under 35 U.S.C. 103(a) as unpatentable by the Electronic Industries Association (EIA) JESD22-C101 Test Method (1995) [Applicant provided reference], in view of Nakaie et al, (U.S. Patent 5,740,007 (1998) and in further view of Gieser (U.S. Patent 6,512,362 (2003)).

Gieser's device for applying a test pulse to a device under test fails to remedy the shortcomings of JESD22-C101 and Nakaie in failing to teach, suggest or otherwise render obvious the charge capacitor recited by claim 1. While Gieser discusses capacitance, it is in regard to the effects of the device under test and a substrate. (Abstract)

Since claims 6, 8 – 23 incorporate or recite like claim elements as the claim elements recited by claim 1, the asserted combination of JESD22-C101, Nakaie and Gieser, were it even possible, likewise fails to teach, suggest or otherwise render obvious the embodiment recited by claims 6, 8 – 23 as well.

Claims 8, 15 (amended) and 20

Claims 8, 15 and 20, while independently patentable, each recites limitations that are similar to those described above with respect to claim 1. Therefore, for at least the reasons stated above with respect to claim 1, the Applicant respectfully submits that claims 8, 15 and 20 are allowable over the art of record and are in condition for allowance.

Claims 2 – 7, 9 – 14, 16 – 19 and 21 – 23

Claims 2 – 7, 9 – 14, 16 – 19 and 21 – 23 are dependent upon Claims 1, 8, 15, and 20 respectively, and thus include each and every feature of the corresponding independent claims. Each of Claims 2 – 7, 9 – 14, 16 – 19 and 21 – 23 is therefore allowable for the reasons given above for the Claims 1, 8, 15, and 20. In addition, each of Claims 2 – 7, 9 – 14, 16 – 19 and 21 – 23 introduces one or more additional limitations that independently render it patentable.

Therefore, it is respectfully submitted that Claims 2 – 7, 9 – 14, 16 – 19 and 21 – 23 are allowable for the reasons given above with respect to Claims 1, 8, 15, and 20.

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and a Notice of Allowance is requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time that may be required.

Respectfully submitted,

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